

ABSTRACT OF THE INVENTION

An apparatus and method to perform therapeutic treatment and diagnosis of a patient's vasculature through the use of an intravascular device having an optical fiber disposed therein. In an embodiment, the apparatus includes an intravascular device to perform a therapeutic treatment and at least one optical fiber disposed through the intravascular device. The optical fiber is configured to provide diagnostic information before, during, and after the therapeutic treatment. In an embodiment, diagnostic information includes vessel and blood characteristics such as hemodynamic characteristics, hematological parameters related to blood and blood components, and thermal parameters of the vasculature.